

*phyllus armatus*, Wagn., which was known from the same host from the Transbaikal country. And off a ptarmigan I took a couple of Mallophaga which Dr. Waterston has identified as *Lagopaeus affinis*, Children, a species described nearly a century ago from a Hudson Bay grouse.

On October 15th the snow fell and that put an end to Entomology; there remained the daily communion with *Blattella germanica* and *Cimex*, which flourished in the overheated rooms in which we lived, in contrast to the frost outside, which the thermometer sometimes showed to be below a hundred degreess.

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### Zygaenae, Grypocera and Rhopalocera of the Cottian Alps compared with other races.

By ROGER VERITY, M.D.

Reports of Lepidoptera collectors in 1925 have almost invariably been very unsatisfactory, owing to rain and cold during the greater part of the summer. I must thus deem myself particularly lucky in having struck a region, where I did very well, and in having discovered a locality, where a remarkable number of species are gathered together in a very small area. The region is the Upper Susa Valley, from Oulx, m. 1100, to Cesana, m. 1300, and thence to Clavières, m. 1800, on the French frontier of the Col du Mont Genève and at the source of the Dora Riparia, and, on the opposite side of Cesana to the Col de Sestrières, m. 2035. The remarkable spot is the rifle-range just above Oulx, in the bed of the aforesaid stream, at the foot of a precipitous rocky mountain side rising several hundred yards above it on its north side, so that it forms a regular sun-trap and it shelters it from most winds. The wind is a feature of the Susa Valley. Every day it blows from about 10 a.m. to sun-set, evidently owing to a draught from Savoy into the Po Basin. It is the most invigorating air I have ever breathed, but after a time it becomes rather trying to one's nerves. As an entomologist I owe it a debt of gratitude, because it was that perpetual wind, which allowed me to collect every day, from June 28th to August 17th, by sweeping the clouds from the Valley on to the mountains on either side, where torrents of rain could be seen falling, whilst Oulx was in the sunshine. The wind also had the effect of inducing the butterflies to collect in sheltered spots, such as the one I have described, so that in an area about half a mile long and 300 or 400 yards broad, I actually found 10 species of *Zygaenae*, 16 of *Grypocera* and 76 of *Rhopalocera* and I was able to collect and set 1800 specimens, mostly in excellent condition. On the northern side of a small rocky spur, which closes the valley nearly entirely, but for a narrow gorge, just above Oulx, there lies a marshy zone, cooler and damper than the rifle-range. It was interesting to observe how the species, which occurred in both spots, emerged fully two weeks later in the former and did not produce the second generation observed in the latter, although the distance between the two was only of a few hundred yards, apart from the high ridge which separated them. Cesana I visited several times and I found there an excellent collecting-ground near the well-known green-marble quarries, in glades in a larch-wood. Although that locality is only 200m. higher than Oulx and only five miles from it, emergence

of early species was nearly a month later, so that it afforded a good opportunity of finding some, which were quite over at Oulx. We shall also see that the races of these two localities are in several species remarkably different. As a matter of fact Cesana, in several cases, resembles Clavières more than Oulx, although its position and general aspect seems much more different from it than from those of Oulx. I made an excursion to Clavières on July 29th, when a few warmer and clear days gave me a chance. It is an excellent locality for high-mountain species and races, which fly in large numbers at the very doors of the comfortable Hotel built two years ago. The Col de Sestrières I visited on August 8th. It is a barren pass covered by a peat-bog and swept by winds or wrapped in clouds alternately, so that butterflies are confined to little gullies, where they seek shelter, and the number of species is very small as compared with Clavières. What was very striking in all the Alpine regions I am dealing with, was the nearly total absence of *Erebia* species, except *neoridas* late in the season at Oulx, and *tyndarus*, at Sestrières. It is unaccountable how Alps, so rich in other genera, can be so poor in that one, which is usually a feature of these mountains. Some species have, no doubt, escaped my notice, but, anyhow, it can be inferred they are local and scarce. The dates in the following list cover the period during which freshly emerged individuals were observed, the old ones, which often go on flying for some time, having been disregarded. Those of Clavières and Sestrières I have not repeated in connection with each species, as I have only collected there once, on the days stated above. Cav. Gianelli of Turin has kindly furnished me with specimens and notes collected at Oulx in June, before my arrival on the spot.

*Zygaena purpuralis* race *nubigena*, Led. : Oulx (beg. July) and Sestrières.—*Z. sarpedon* race *carmencita*, Obth. : Oulx (Aug. 2nd).—*Z. meliloti* exerge *charon* race *charon*, Hb. with very melanic *italica*, Car., as extreme forms of normal variation : Oulx, near lake (July 15th-20th).—*Z. lonicerae* race *alpiumgigas*, Vrtv. (= *major*, Frey., *nom. praeocc.*) : Oulx (July 7th-Aug. 15th), Cesana and Clavières.—*Z. filipendulae* exerge *stoechadis* race *medicaginis*, Hb. : Oulx (July 9th-31st). Gianelli informs me that lower down in the Valley, at the Brunetta Fort, near Susa, nymotypical form *stoechadis* occurs frequently, but only one or two of my Oulx specimens are transitional to it.—*Z. transalpina* race *alpicola*, Vrtv. (= *alpina*, B., *nom. praeocc.*) : Oulx (July 12th-beg. Aug.) and Cesana.—*Z. achilleae* race *alpestris*, Burg. (= *alpina*, Obth., *nom. praeocc.*) : Oulx (July 6th-16th).—*Z. hilaris* race *galliae*, Obth. : Oulx (July 23rd-Aug. 3rd).—*Z. fausta* race **alpiummicans**, mihi. : Oulx (Aug. 2nd-15th). By its size and by the extent of the white spaces round the red spots, this race can be described as intermediate between race *fortunata*, Ramb., of Central France, and race *nicaeae*, Stdgr., of the South of France, both of which some extreme individuals exactly resemble ; in others, particularly of the female sex, the red spots are larger than in either of these races and partly confluent to a degree, which recalls the Spanish races ; the tone of red is of an unusually vivid yellowish crimson, less saturated than in *nicaeae*. No doubt this is the race from the Basses Alpes described by Oberthür in his *Ét. Lép. Comp.*, IV., p. 623.—*Z. carnio-lica* race *hedysari*, Hb. : Oulx (July 8th-Aug. 15th) and Cesana. Never any red abdominal ring in either sex, except a faint vestige in very

rare individuals; markings extremely variable; white spaces ranging from entire obliteration to considerable breadth in both sexes; they are distinctly yellow in a few cases; in a few males the fifth kidney-shaped spot is reduced to three or four minute red or white specks. This race is, no doubt, the real *hedysari*, originally described from the Piedmontese Alps.

*Nisoniades tages* race *tages*, L.: Oulx and Cesana in June.—*Erynnis alceae* probably race *alceae*, Esp.: Oulx (suddenly appeared from Aug. 6th to 11th, and then disappeared again). My specimens fall in with II. gen. *aestiva*, Hormuzaki, *Verh. Zool.-Bot. Ges. Wien.*, 1897, p. 164, better, on the whole, than with Esper's figures, but they exhibit considerable variation: some are of a dark blackish brown on both surfaces, others are of a warm chestnut; size of white spaces and light underside bands very variable.—*E. marrubii* (= *boeticus*) race *grisea*, Vrtý., presumably with a single generation: Oulx (Aug 7th).—*E. altheae* race *altheae*, Hb.: Oulx (exactly like *alceae*) and Clavières (July 29th), so that probably at Oulx I only came in for II. gen.—*E. laratherae* race *laratherae*, Hb.: Oulx (July 7th-Aug. 12th).—*Powellia sao* race *alioides*, mihi: Oulx (beg. July-beg. Aug.) and Cesana. This race consists of 50% nymotypical *sao*, with brick-red underside, 38% transitional forms and 12% of one, which can be described as a further grade along the line of variation leading through the African *ali*, Obth., and then *therapooides*, Obth., back to *therapne*, Rbr., presumably the most ancient of the series. The features of the furthest European grade, which I name **alioides** from my Oulx specimens, but which I possess also from other regions, are: the large size of the disco-cellular white space on both surfaces of hindwing; on the underside it projects outwardly, and often also inwardly, into a long sharp point; the outermargin of these wings is preceded by a broad white area or by one of a lighter tinge than the rest of the wing, which is tawny; the black internervural streaks are prominent.—*Hesperia carthami* race *carthami*, Hb.: At Cesana (males swarmed July 11th; females from 24th), at Clavières and at Sestrières the race is perfectly nymotypical; at Oulx (all July) it is larger and points to race *speciosa*, Vrtý.—*H. serratulæ* race *serratulæ*, Rbr.: Cesana (July 15th) and Sestrières; one female at Oulx (Aug. 4th).—*H. bellieri* race **nigropicta**, mihi: Oulx (males July 6th-Aug. 4th; females July 20th-Aug. 16th), Cesana and Clavières. This race seems to show that *bellieri* and *foulquieri* are co-specific, as suspected by Reverdin from the genitalia. In size it agrees with nymotypical *bellieri*, as figured by Oberthür from Larche (fig. 490 and 1872-6) and it has, like it, the premarginal white lunules of underside of hindwing broad and placed in a straight row, very near their margin. By the extent of the pattern it resembles very much the specimens figured by Oberthür from the hills of the Var (fig. 1865-8) under the name of *foulquieri*, because on both surfaces the white spaces are much less prominent than in *bellieri*; there is, however, at the base of the forewing, above, a slight white dash which does not exist in those figures. The underside of the hindwing is also more like *bellieri*, by its colder more greenish tone. A peculiar feature, not seen in any of Oberthür's figures, is that it is streaked in the internervural spaces with gray, or even with black, so that it is darker, and that the white spaces are often edged with a dark line, somewhat as in *carthami*, but less sharply.

One of my specimens from Clavières agrees well with the typical figure of *bellieri* and in fact also Oberthür records it from this locality (Col du Mont Genève), collected by him in 1906 (Vol VI., p. 88). Two extreme ones from Oulx agree, on the contrary, with the figure of *foulquieri* from Entrevaux (fig. 487-8) by their much larger size, broader wings and prominent white spaces above and with corresponding specimens I have from the Bouches-du-Rhône, by their clear reddish-yellow undersides, with no black powdering.—*H. alvens* race *grandis-alvens-alticola*, Vrty.-Hb.-Rebel: Oulx (July 1st-25th). My first task consisted in sorting out the *bellieri* from the *alvens*, a difficult one on account of the strong resemblance of *nigropicta* to the latter: this I did on the strength of the sharper angles of the wings of the former, of their more silvery sheen, of their bluish hair, of the bracket-like white spaces at the end of the cell of the forewing, of the whiter base of these wings on both surfaces, of the whiter area along the abdominal margin of the hindwing on the underside and of the shape and position of their premarginal white lunules, which are larger, more even in size, and placed in a straighter row, nearer the margin. I then found that the *alvens* of Oulx were still very variable and could be grouped into three lots corresponding to the three forms mentioned above, although my impression is they certainly intergrade into each other and one cannot suspect them to be three species. Race *alvens*, Hb.: At Cesana one only meets with a form corresponding exactly to Hübner's figures. Race *alticola*, Rebel: At Clavières and at Sestrières this form entirely replaced the preceding. I apply Rebel's name to it because it seems to me identical with my series from Sulden on the Ortler, only a few miles from the locality of Rebel's "types": the Stelvio. Oberthür's figures 1859-64 in Vol. VII., of specimens from Larche, represent it perfectly and its proximity to the region we are dealing with makes it very natural, but what surprises one is that he should apply to those figures his name of *ryffelenensis*, whereas his original figures 470-1 from the Ryffelalp represent an entirely different form. His figures 1855-8 of nymotypical *alvens*, also from Larche, agree exactly with my Oulx and Cesana specimens of this form.—*H. carlinae* race *carlinae*, Rbr.: Only one couple at Oulx (Aug. 7th); abundant at Cesana, Clavières and Sestrières.—*H. onopordi*, Rbr. race *conyzae*, Guen.: I. gen. *conyzae* emerged at Oulx till July 5th and corresponds exactly to Oberthür's fig. 530-1 of co-types of La Charnée (Savoy); II. gen. **postgenita**, mihi, emerged from Aug. 2nd-17th. The underside of the hindwing differs nearly invariably from that of the I. gen. by its warmer reddish tone, often very bright.—*Adopaea lineola*, race *ludoviciae*, Mabilbe, with individual variations extending as far as *clara*, Tutt, described from Larche, Useigne, Courmayeur as racial: Oulx (end of June to Aug. 10th); Clavières.—*A. flava* race **macta**, mihi=*major*, Tutt (nom. praecoc. in *lineola*)\* recorded by him also from Torre Pellice; Oulx, Cesana, Clavières.—*Thymelicus acteon* race *acteon*, Rott.: Oulx (from July 15th).—*Angiades sylvanus* race *sylvanus*, Esp.: Oulx (from end of June); Cesana.—*Urbicola comma* race *alpina*, Bath: Oulx (Aug. 9th-16th); Cesana.—

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\* I do not see why the same varietal name should not be used in allied species.—E.A.C. Nor do I.—H.J.T.

*Heodes virgaureae* race *inalpinus*, Vrty. : At Cesana (July 15th-24th) the race seems quite similar to that of the Baths of Valdieri in Marit. Alps and a single male from Clavières seems the same. Race *zermattensis*, Fallou: Sestrières.—*Chrysophanus hippothoë* race *eurybia*, O.: Sestrières. Courvoisier is mistaken in stating (*Entom. Zeit. Guben.*, 1912, p. 52) that this name should be replaced by the older one of *euridice*, Esp., because the latter name was created, before Esper, by Rottemburg, and it is simply a synonym of *hippotoë*.—*Lowia alciphron* race **ultra-gordius**, mihi; Oulx (July 10th-Aug. 5th). Large size: male of a lighter and paler, clear pinkish-yellow ground colour than I have seen in any other race; no violet sheen; all the dark spots are very small in both sexes, so that the female contrasts particularly with Sulzer's *gordius* figure from the Grisons and the regions south of these, such as Chiavenna ("aus Bündten"), in which they are very large, especially in the premarginal row; underside of a lighter and colder gray than in most races. The Maritime Alps race is quite different (for it Turati and I have revived de Prunner's name of *columbanus*) and so are those described by Frühstorfer.—*Lycæna alcon* race *alcon*, F.: Oulx (July 8th).—*L. arion* race *obscura*, Frey: Oulx (a fresh female as late as July 28th); Cesana, and Clavières. Very small average size.—*Glaucopsyche cyllarus* race *cyllarus trans. ad alpina*, Rott.-Trti, and Vrty.: Oulx (May, only females fresh in June).—*Cyaniris semiargus* race *montana*, M.-D.: Oulx (all worn at end of June, but one perfectly fresh male on July 23rd), Cesana and Sestrières. Race *montana trans. ad cimon*, M.D.—Lewin: Clavières.—*Latiolina glandon* race *glandon*, de Prunn.: Clavières. Described from these same Alps, this is certainly the nymotypical race. The specimens I have collected at Sulden, on the Ortler, are similar to it, but those from the Stelvio and from the Schmalz Kopf are markedly poorer in pigment and much lighter in tone on both surfaces, so that they constitute a distinct more eastern race, which can be called **dealbata**, mihi. Ghiliani was, no doubt, perfectly right in stating that de Prunner's *orbitulus* is the species known as *pheretes*, Hb.; Kirby suggests timidly that the former name should replace the latter and Courvoisier courageously adopts it. As to the species usually called *orbitulus*, Ghiliani makes out it is de Prunner's *glandon*, and it seems to me the description fully justifies this conclusion. Thus, this name should be revived and adopted for it, especially as, otherwise, one would be at a loss as to the name to use. Kirby's use of *orbitulus*, Esp., is a mistake, considering this name was previously erected by de Prunner, and Courvoisier's use of *rustica*, Edwards, is a still greater mistake, considering its more recent origin than others given to forms of the species, amongst which *aquilo*, Boisd., is, I think, the oldest.—*Vacciniina optilete* race *cyparissus*, Hb.: Sestrières.—*Aricia donzelii* race *donzelii*, Boisd.: Cesana and Clavières.—*A. chiron* race *chiron*, Rott.: Oulx (end of June all worn) and Clavières.—*A. medon* race *medon*, Hüfn.: Oulx (July-Aug.), Cesana, Clavières and Sestrières. All the same race, usually called *allous*, Hüb., or *alpina*, Stdgr., when *astrarche*, Bgstr., was used as the specific name.—*Plebeius argus* race *philonomus*, Bergstr., according to the way Tutt applies this name, exactly similar to the couple from Larche (Basses Alpes) figured by Oberthür, *Ét. Lép. Comp.*, IV., fig. 315-6: Oulx (end of June to July 20th, and one fresh male on Aug. 10th).—*P. idas*, L. = *argyrognomon*, Bergstr., according to various

authors (see descriptions of following races in the *Ann. Soc. Ent. France*, 1926): Race *magnalpina*, Vrty.: Cesana (July 11th-Aug 1st). Race *alpina*, Berce: Oulx, in stony bed of Dora Riparia, in dry and warm spot, from Aug. 3rd to 16th, evidently being the II. gen. and the I. gen. having flown in June. Race *calliopides trans. ad alpina*, Vrty.-Berce: Oulx, in swampy meadow by the lake, with a northern exposure (middle of July, with a single generation). Race *calliopides*, Vrty., with individuals transitional to *alpina* by the characters of the underside of the wings, but not of the upperside. One remarkable male I have described (*l.c.*) as form *bellierides*: Clavières. Race *calliopides*, Vrty.: Sestrières.—*Polyommatus tithonus*, Hb.=*eros*, O., race *tithonus*, Hb.: Cesana (July 15th-24th) and Clavières. Ghiliani is probably perfectly right in referring *brama fama*, de Prunner, to this insect and Kirby makes a mistake in referring it to *coridon*, which de Prunner quotes and describes quite differently, but, on the other hand, the description contains no elements furnishing a sure clue, so that I do not feel justified in proposing to revive the name for the species.—*P. icarus* race *icarus*, Rott.: Oulx. I. gen. *icarus*, Rott. (June); II. gen. *ovalisquamosa*, Ball (Aug. 3rd-16th). The latter is smaller on an average than the I. gen., but only extreme individuals are *minor*, Cock., and none reach the still further degree of *pusilla*, Gerh.; on the underside metallic scaling at base of wings reduced to half the extent; tone of grey in male slightly fulvous; tone in most females distinctly lighter and more fulvous. After due consideration, I think the above definition of the summer generation is necessary and that it applies to that of many dry localities of Central Europe, although I perfectly agree with the statement of several authors that the distinction is far less marked than in the southern race *zellerica*, Vrty., with its II. gen. *aestivalis*, Tutt, or *nana*, Grund. At Oulx the II. gen. was only produced in the dry, stony bed of the river in a southern exposure. A few hundred yards away, but on the northern side of a spur of rocks, the I gen. was still on the wing on July 20th and no other was produced. At Clavières it was emerging on July 29th. Race *rufoprivata*, mihi: Sestrières, 2035m., on a peat-bog. Underside of male of a cold, dark grey; that of female exactly of the same colour, which is, to my knowledge, a character not yet recorded from any locality; lunules of the underside constantly pale yellow in both sexes; those of the female on the upperside small and slightly warmer in tinge; this sex has on this same surface a broad powdering of a colder silvery blue than is usual in *icarus* and the fringes are entirely snow-white.

(To be concluded.)

### **Corticaria corsica, Bris., a species of Coleoptera new to Britain.**

By HORACE DONISTHORPE, F.Z.S., F.E.S., etc.

“*Corticaria corsica*.—Elongata, nigro-picea, pube tenui depressa obsita, elytris ferrugineis, ad scutellum infuscatis. Antennae thorace paulo breviores, testaceae. Thorace subcordato, ante medium rotundato ampliato, crebre ruguloso-punctato, acute denticulato denticulis versus basin acutioribus. Elytris tenuiter, confertissime striato-punctatis, interstitiis seriato-punctatis. Pedes ferruginei.—Long 2 mill.

“Un peu plus grande que la *serrata*, un peu étroite, plus parallèle; élytres plus finement striées-punctuées, les points des intervalles un